



Dune vegetation



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Made on the New Zealand Plant Conservation Network website: www.nzpcn.org.nz

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INTRODUCTION

This book was compiled from information stored on the website of the New Zealand Plant Conservation Network (www.nzpcn.org.nz).

This website was established in 2003 as a repository for information about New Zealand's threatened vascular plants. Since then it has grown into a national database of information about all plants in the New Zealand botanic region including both native and naturalised vascular plants as well as non-vascular plants and fungi.

Funding to develop the website was provided by the New Zealand Government's Terrestrial and Freshwater Biodiversity Information System Programme (TFBIS). The website is run by a team of volunteers and is continually improving in both the richness of content and the range of functions it offers.

The species information used on the website has come from a variety of sources which are cited at the bottom of a species page.

Where no published treatment was available Peter used herbarium specimens and his own knowledge of the flora to prepare species pages. Various other contributors have provided text and additional information to many species pages including botanists such as John Barkla, Cathy Jones, Simon Walls, Nick Singers, Mike Thorsen and many others. The threatened fungi text was written by Eric Mackenzie and Peter Buchanan (Landcare Research) and aquatic plant information was supplied by Paul Champion from NIWA. Colin Ogle has contributed to the exotic species fact sheets.

More than 200 photographers have kindly provided images to illustrate the website and for use in this book especially John Smith-Dodsworth, Jeremy Rolfe, Peter de Lange, Wayne Bennett and Gillian Crowcroft, Mike Thorse, Colin Ogle and John Sawyer.

THE NEW ZEALAND BOTANIC REGION

The information on the Network website, from which this book was compiled, is for species that are indigenous to or naturalised within the New Zealand Botanic Region as defined by Allan (1961). The New Zealand botanic region encompasses the Kermadec, Manawatawhi/Three Kings, North, South, Stewart Island/Rakiura, Chatham, Antipodes, Bounties, Snares, Auckland Campbell island/Motu Ihupuku and Macquarie.

ABOUT THE NETWORK

The Network has more than 800 members worldwide and is New Zealand's largest non-governmental organisation solely devoted to the protection and restoration of New Zealand's indigenous plant life.

The vision of the New Zealand Plant Conservation Network is that *'no indigenous species of plant will become extinct nor be placed at risk of extinction as a result of human action or indifference, and that the rich, diverse and unique plant life of New Zealand will be recognised, cherished and restored'*.

Since it was founded in 2003 the Network has undertaken a range of conservation initiatives in order to achieve its vision.

That work has included:

- Training people in plant conservation
- Publishing plant books, reports and posters
- Raising money for the David Given Threatened Plant Research Trust to pay for plant conservation research scholarships
- Educating people about plant life through the Network website
- Connecting people through our website, the monthly newsletter, the Network conference and the annual general meeting

WHAT IS A THREATENED PLANT?

The NZ Threatened Plant Committee was formed in 1991 and ever since then it has met at regular intervals to review the status of indigenous vascular plants. It is made up of a team of botanists that between them have an extensive knowledge of the native plants of New Zealand.

This committee applies a set of criteria to each native plant to determine its conservation status. The resulting list of species classified as threatened is published in the NZ Journal of Botany (see for example [de Lange et al. 2018](#)). The main threat categories used are: Extinct, Nationally Critical, Nationally Endangered and Nationally Vulnerable, Declining. Other categories used are: Recovering, Relict, Naturally Uncommon, Coloniser, Vagrant and Data Deficient. For vascular plants the threat status used in this book is taken from the ['Conservation status of New Zealand indigenous vascular plants, 2017'](#) by [de Lange et al. \(2018\)](#).

Recently other committees have been established to review the status of non-vascular plants and have produced assessments for New Zealand mosses ([Rolfe et al., 2016](#)) as well as horworts and liverworts ([de Lange et al., 2015](#)).

Calystegia soldanella

COMMON NAME

Shore bindweed, shore Convolvulus, rauparaha

SYNONYMS

Convolvulus soldanella L.

FAMILY

Convolvulaceae

AUTHORITY

Calystegia soldanella (L.) R.Br.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Lianes and Related Trailing Plants

NVS CODE

CALSOL

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. Kermadec, Three Kings, North, South, Stewart and Chatham Islands. Indigenous to both Northern and Southern Hemisphere temperate regions.

HABITAT

Coastal or inland along lake shorelines. Usually in sand or shell banks but also grows in fine gravel or pumice, talus slopes and on occasion in coastal turf or on cliff faces.

FEATURES

Perennial herb with stout, white, deeply descending, fleshy roots and numerous prostrate branching stems forming dense patches. Stems glabrous. Petioles 80 mm or less, slender. Leaves (10-)50(-80) x (10-)50(-75) mm, reniform, fleshy, glossy, entire; sinus shallow and rounded; apex emarginate, obtuse or acute. Flowers solitary; peduncles ribbed, 100 mm long. Bracts ovate, cordate, obtuse 12-18 mm long. Sepals nearly = bracts, obtuse. Corolla 20-40 x 25-50 mm, campanulate, pink with white mid-petaline bands. Capsule 15-20 mm long, broad-ovoid, apiculate. Seeds dark brown, smooth.



Calystegia soldanella. Photographer: John Barkla



Fortrose Spit. Photographer: John Barkla

SIMILAR TAXA

None - the prostrate habit and reniform leaves clearly distinguish this species from all other indigenous and introduced *Calystegia* species. However, *C. soldanella* forms hybrids with *C. tuguriorum*, and these can be recognised by their weakly lianoid habit, puberulent, subsucculent stems and leaves, reniform to deltoid leaves, and pale pink subcampanulate flowers. *C. soldanella* is also suspected to hybridise with *C. sepium* subsp. *roseata*, and *C. marginata*.

FLOWERING

August-March

FLOWER COLOURS

Red/Pink, White

FRUITING

Present throughout the year

LIFE CYCLE

Capsules are water and possibly also wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easy from seed or rooted pieces. Once established very hard to eradicate! An attractive ground cover for a difficult, dry, sunny or exposed spot. For a bit of variety try growing it in bach lawns - its does not require mowing and is much more interesting than kikuyu grass (*Pennisetum clandestinum* Chiov.)

ETYMOLOGY

calystegia: Name is derived from the Greek words kalyx 'cup', and stege 'a covering', meaning 'a covered cup', the calyx of some bindweeds being enclosed in two bracts.

soldanella: From Latin 'soldo' a type of coin, referring to the shape of the leaves

CULTURAL USE/IMPORTANCE

The Maori gathered the thick, white, fleshy roots and pounded these to form a pulp, this was then used as a relish to flavour some meats.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 1 November 2005. Description adapted from Allan (1961) and Webb et al. (1988), supplemented with observations made from fresh and dried material.

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Wellington, Government Printer.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: Flora of New Zealand. Vol. IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons. Christchurch, New Zealand, Botany Division, D.S.I.R..

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Calystegia soldanella* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/calystegia-soldanella/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/calystegia-soldanella/>

Carex pumila

COMMON NAME

Sand sedge

SYNONYMS

Carex littorea Labill.; *Carex pumila* Thunb. subsp. *littorea* (Labill.) Kük.

FAMILY

Cyperaceae

AUTHORITY

Carex pumila Thunb.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

CARPUM

CHROMOSOME NUMBER

2n = 82

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North, South and Chatham Islands. Uncommon in parts of the South Island. Also recorded from Australia, Lord Howe Island, Chile, China, Japan and Korea.

HABITAT

Mostly coastal, rarely extending inland. A species of mobile sand dunes, sand flats and dune slacks (swales). Sometimes found fringing the sandy margins of coastal rivers and lagoons. Occasionally found as an urban lawn weed, especially in coastal settlements.



Waikawau bay, November. Photographer: John Smith-Dodsworth



At Wainuiomata River mouth. Dec 2006. Photographer: Jeremy Rolfe

FEATURES

Deep blue-green to glaucous, tufted sedge; tufts coarse, arising from a long, wiry creeping rhizome of c.2 mm diameter Culms mostly buried in sand, 50–300 mm long, terete, smooth, cream or light green, almost entirely enclosed by light brown or cream, occasionally red-brown leaf-sheaths. Leaves > culms, up to 400 mm long, 1.5–0 mm. wide, channelled, rigid, glaucous, curved and tapering to a fine point, margins mostly smooth. Spikes 3–8, ± approximate; terminal spike male, often long-pedunculate, very slender, often with 1–3 very small, occasionally partly female, spikes at the base; remaining spikes female, often male at the top, 10–35 x c.10 mm. Glumes c.½ length of utricles, rarely only slightly < utricles, ovate, acute, red-brown, with broad colourless hyaline margins, midrib very pale brown, thickened, usually produced to a short awn. Utricles 6.0–7.5 x 2.0–3.5 mm, biconvex to subtrigonus, ovoid, light brown, thick, corky, turgid, smooth or faintly nerved, narrowed to a bifid beak, 1.5–2.0 mm long, orifice membranous, crura faintly scabrid at tip. Stigmas 3. Nut 2.5–4.0 x 1.5–2.5 mm., trigonus, obovoid, light brown, shortly mucronate.

SIMILAR TAXA

None. The long, creeping, wiry rhizome, channeled, smooth-edged glaucous leaves and distinctly corky utricles are especially diagnostic.

FLOWERING

October - December

FRUITING

December - June

LIFE CYCLE

Spongy utricles dispersed by water and wind (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and by division of established plants. Will grow in most soils and conditions but does best in a freely draining medium in full sun. Some wild populations rarely set seed, and some selection of wild forms is merited. An excellent and highly under-rated sand binder.

ETYMOLOGY

carex: Latin name for a species of sedge, now applied to the whole group.

pumila: Small

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (110 August 2006). Description adapted from Moore and Edgar (1970)

REFERENCES AND FURTHER READING

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 2009 Vol. 11 No. 4 pp. 285-309

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Carex pumila* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/carex-pumila/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/carex-pumila/>

Carex testacea

COMMON NAME

Speckled Sedge, Trip Me Up

SYNONYMS

None

FAMILY

Cyperaceae

AUTHORITY

Carex testacea Sol. ex Boott

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

CARTES

CHROMOSOME NUMBER

$2n = c.52$

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North and South Islands. Uncommon in the South Island.

HABITAT

Coastal to montane. In sand dunes, coastal forest and scrub, dense forest or short tussock (*Festuca novae-zelandiae* (Hack.) Cockayne) grassland.



Otama Beach, February. Photographer: John Smith-Dodsworth



At Otama Beach, February. Photographer: John Smith-Dodsworth

FEATURES

Densely tufted, 0.3-0.6(-0.8) m high, usually dark red to orange-red sedge. Culms < or > leaves, often exceedingly elongated at maturity, up to 2 m long, trailing, prostrate, < 1 mm diameter, often almost filiform, trigonous or subtrigonous, glabrous or slightly scabrid below the inflorescence; basal sheaths dark brown or red-brown, nerves distinct. Leaves 1.0-2.5(-3.0) mm wide, channelled, usually reddish or orange-green, sometime slight green, harshly scabrid. Spikes 3-5, ± approximate; terminal spike male, c. 1 mm diameter, ± = female spikes in length, on a filiform peduncle; remaining spikes female, 5-25(-30) × c. 5 mm, often with a few male flowers at the base, sessile, or the lowest more distant and shortly pedunculate. Glumes (excluding awn) ± = utricle, broadly ovate, thin and membranous, often deeply emarginate, occasionally entire, very light brown with darker flecks, midrib usually brown-spotted, produced to a scabrid awn of variable length. Utricles c. 2.5 × 1.5 mm, ± plano-convex, broadly ovoid, pale yellow-brown below, purple-brown above, nerved, more strongly so on the more convex face, shining, narrowed abruptly to the deeply bifid beak c. 0.5 mm long, margins and orifice usually finely scabrid, occasionally ± contracted below to a stipe c. 0.5 mm long. Stigmas 2. Nut c. 1.5 mm long, biconvex, dark brown, almost black.

SIMILAR TAXA

Carex testacea belongs to a complex of allied species which include the South Island, ultramafic endemic *C. devia* Cheesemanii, *C. raoulii* Boott, and *C. flagellifera* Colenso. From *C. devia* and *C. raoulii* it is best distinguished by its usually long trailing fruiting culms, narrow, mostly orange-red, or reddish-green, channelled leaves, and usually distant, pendent female spikes. It is morphologically closest to *C. flagellifera* (itself a species complex). From that species, at least in its typical form it differs by the usually orange-red to red-green, rather than yellow-green to dark green culms, and membranous, mostly light brown glumes bearing numerous fine, red-brown striae, rather than uniformly red brown to dark red-brown, subcoriaceous glumes.

FLOWERING

September - December

FRUITING

November - May (but may be present throughout the year)

LIFE CYCLE

Nuts surrounded by inflated utricles are dispersed by granivory and wind (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and by division of established plants. Can be grown in full sun and deep shade but prefers a free draining soil. Forms with dark orange-red leaves and culms are very popular in cultivation.

ETYMOLOGY

carex: Latin name for a species of sedge, now applied to the whole group.

testacea: From the Latin 'testa' tile, referring to either the hard quality of something or its yellow-brown colour like that of terracotta.

NOTES ON TAXONOMY

Carex testacea is extremely variable and is probably better regarded as a species complex. Plants of inland forests are usually much stouter, and have longer, darker brown spikes than those collected from coastal areas. Forms from upland short-tussock grassland typically have wider leaves, and shorter culms, and in some sites are difficult to distinguish from *C. wakatipu* Petrie.

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (10 August 2006). Description adapted from Moore and Edgar (1970)

REFERENCES AND FURTHER READING

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 2009 Vol. 11 No. 4 pp. 285-309

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Carex testacea* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/carex-testacea/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/carex-testacea/>

Coprosma repens

COMMON NAME

Taupata, looking glass plant, mirror plant

SYNONYMS

C. retusa Hook.f.; *C. baueriana* Hook.f.; *C. baueri* auct. non Endl.; *C. stockii* Williams, Choice, Stove et Greenh.

FAMILY

Rubiaceae

AUTHORITY

Coprosma repens A.Rich.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

COPREP

CHROMOSOME NUMBER

2n = 44

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Common low-growing shrub or small tree bearing pairs of green very shiny dark green leaves inhabiting the edge of coastal forests and seaside rocks. Leaves 6-8cm long, leathery, with small pits at junction of veins. Fruit orange.

DISTRIBUTION

Endemic. Three Kings, North and South Islands as far south as Greymouth in the west and Rarangi in the east but now extensively naturalised throughout the South Island, Stewart and Chatham Islands. Also naturalised on Norfolk Island and in Hawaii, in Australia, California and South Africa.

HABITAT

Coastal (rarely inland: Kaitaia – Awanui River, Huntly Basin and in the Manawatu – especially the upper Rangitikei River). A common species of rock stacks, islets, islands coastal cliffs, talus slopes and boulder field. Also a common component of petrel scrub on northern offshore islands, and in coastal forest where it often forms the main understorey and rarely is co-dominant in the canopy. Frequently associated with other coastal *Coprosma*, especially *C. crassifolia*, *C. macrocarpa* subsp. *macrocarpa* and subsp. *minor*, *C. rhamnoides*, *C. neglecta*, and members of the *C. acerosa* complex. Hybrids between *C. repens* and *C. acerosa* are common and are known as *C. xkirkii*, less frequently hybrids between it and *C. crassifolia* are found (*C. xbuchananii*) and with both *C. rhamnoides* and *C. neglecta*.



A picture of *Coprosma repens* at Taupata.
Photographer: John Barkla



Taupata. Eastbourne. June 2001. Photographer:
Jeremy Rolfe

FEATURES

Dioecious (rarely monoecious) shrub or small tree up to 8 m tall, prostrate and widely spreading in exposed sites, shrubby to arborescent in more sheltered situations; branches firm and more or less pliant when young becoming more brittle with age, bark dark to light brown, underbark green; branchlets initially pubescent with short patent hairs, becoming glabrous with age. Leaves on fleshy glabrous, slender to stout petioles 8-16 mm long. Stipule shortly sheathing, margin finely pubescent, otherwise outer surface pubescent, inner more or less glabrous, broad-deltoid, subacute to subtruncate; denticles up to 4 either side of a single large, dark black apical denticle, conspicuous, central one prominent. Lamina thick, subfleshy, coriaceous, 5-90 × 4-60 mm, dark glossy green above, paler and dull below; broad-oblong, elliptic-oblong, broadly ovate-oblong to suborbicular, rounded to truncate, usually apiculate (slightly emarginate to retuse on Three Kings and northern Hauraki Gulf Islands), apiculus caducous, cuneately narrowed to base; margins plane to slightly recurved (very occasionally inrolled). Vein reticulations evident above and especially below. Flowers in compound clusters on branched peduncles. Male flowers 3-20 per cluster; calyx-teeth minute; corolla funnelform, lobes 4-5, acute, about = tube. Female flowers usually 3 per cluster; calyx-teeth short, obtuse; corolla subfunnelform, c.5 mm long, lobes acute or obtuse, < tube; stigmas stout (Perfect flowers occasional (though with pollen often aborted or malformed) through out range but especially common on the northern offshore islands). Drupe orange-red, red (rarely yellow), obovoid often slightly compressed, 8-12 × 8-10 mm

SIMILAR TAXA

A distinctive species easily recognised by the very glossy, dark green, broadly oblong to suborbicular (round) leaves. It is only likely to be confused with *C. baueri* (a Norfolk Island endemic extremely rarely cultivated in New Zealand) and *C. petiolata* (a Kermadec endemic rarely cultivated in New Zealand). For distinctions between it and *C. petiolata* see *C. petiolata*.

FLOWERING

June - February

FLOWER COLOURS

Green, White

FRUITING

July - June

PROPAGATION TECHNIQUE

Easily grown from fresh seed, semi-hardwood cuttings and layered pieces. Moderately frost-tender. An attractive species which is inclined to self-sow and times become weedy in cultivation. In some places of New Zealand where it is not natural it has become established from garden plantings and it now poses a threat to other indigenous *Coprosma* populations as well as local coastal vegetation associations.

ETYMOLOGY

coprosma: From the Greek kopros 'dung' and osme 'smell', referring to the foul smell of the species, literally 'dung smell'

repens: From Latin repere meaning to creep, means creeping

STATUS OVERSEAS

A serious weed in many countries, e.g., Australia, Norfolk Island, South Africa, U.S.A. (California), Hawaii. Hybrids between this species and the Norfolk Island endemic *C. baueri* are now frequent on that island, and could possibly be responsible for its ultimate extinction from that island group.

ATTRIBUTION

Description based on Allan (1961) though supplemented with additional measurements and observations taken from herbarium specimens and wild plants.

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I, Government Printer, Wellington.

Dawson, J.W. 1961. *Coprosma*. The Spike (or Victoria University College Review). Victoria University of Wellington Student's Association.

Gordon, H.D. 1959. Sex ratio in *Coprosma repens* (rubiacae). Wellington Botanical Society Bulletin, 31: 11

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/coprosma-repens/>

Dimorphotheca fruticosa

COMMON NAME

Dimorphotheca

SYNONYMS

Osteospermum fruticosum

FAMILY

Asteraceae

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Dicotyledonous Herbs - Composites

NVS CODE

OSTFRU

CONSERVATION STATUS

Not assessed

HABITAT

Terrestrial. Sand and coastal sites.

FEATURES

Perennial herb, becoming woody at the base often forming dense mats. The leaves are alternately arranged on procumbent stems. Leaves are fleshy, toothed and are up to 10 x 2.5 cm. Daisy-like flowers are produced with white-mauve petals and dark central disc. Many small seeds are produced.

SIMILAR TAXA

Can be distinguished from the closely related *O. jucundum* by the white ligule. The ligule is pink to mauve on *O. jucundum*

FLOWERING

August, September, October, November, December, January

FLOWER COLOURS

Violet/Purple, White

YEAR NATURALISED

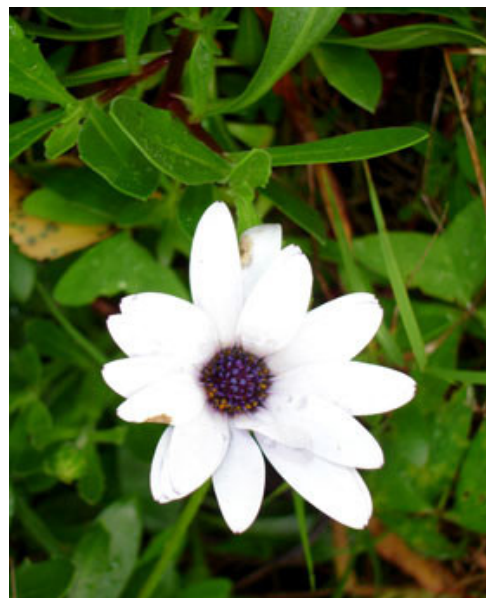
1977

ORIGIN

South Africa

ETYMOLOGY

fruticosa: Shrubby



Osteospermum fruticosum. Photographer: Peter de Lange



Pauatahanui Inlet. Jun 2006. Photographer: Jeremy Rolfe

Reason For Introduction

Ornamental

Reproduction

Vegetative spread by layering, and seed.

Seed

Viable seeds are produced.

Dispersal

People, soil movement.

Tolerances

Very tolerant of salt.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dimorphotheca-fruticosa/>

Erigeron sumatrensis

COMMON NAME

Broad-leaved flea-bane

SYNONYMS

Conyza albida (Willdenow), *Conyza sumatrensis* (Retz.) E.H.Walker

FAMILY

Asteraceae

AUTHORITY

Erigeron sumatrensis Retz.

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Dicotyledonous Herbs - Composites

NVS CODE

CONSUM

CONSERVATION STATUS

Not assessed

BRIEF DESCRIPTION

The plant has a branched hairy flower stalk 30 to 60 cm high, with leaves tapering to both ends (Hilgendorf 1926). The plant has numerous dingy cream heads 0.5 cm in diameter, with red-purple tinge.

SIMILAR TAXA

E. bonariensis is easily distinguished from the other common weedy *Erigeron* spp. by its narrow leaves, usually twisted and with wavy or undulate margins and by its larger flower heads (capitula). *E. bilbaoanus* has its bracts around each capitulum (the involucre bracts) much less hairy than those of *E. bonariensis* and *E. sumatrensis*, the latter two being distinguished most readily by the twisted vs flat leaves.

FLOWER COLOURS

White, Yellow

YEAR NATURALISED

1957

ORIGIN

Subtropical S. America. Also known in New Zealand as *Conyza albida* Spreng.

ETYMOLOGY

erigeron: From the Greek *eri* 'early' (or ear 'spring') and *geron* 'old', possibly alluding to the hairy seed pappus, or perhaps to the hoary appearance of the leaves of some species in the spring.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/erigeron-sumatrensis/>



Conyza sumatrensis, April 2006, Hutt River north of Stokes Valley. Photographer: Jeremy Rolfe



Conyza sumatrensis stem and leaves, April 2006, Hutt River north of Stokes Valley. Photographer: Jeremy Rolfe

Ficinia nodosa

COMMON NAME

Wiwi, knobby club rush, ethel sedge

SYNONYMS

Scirpus nodosus Rottb., *Isolepis nodosa* (Rottb.) R.Br., *Scirpoides nodosa* (Rottb.) Sojak; *Holoschoenus nodosus* (Rottb.) Dietr.

FAMILY

Cyperaceae

AUTHORITY

Ficinia nodosa (Rottb.) Goetgh., Muasya et D.A.Simpson

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

FICNOD

CHROMOSOME NUMBER

2n = 30

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. Kermadec, Three Kings, North, South, Stewart and Chatham Islands. Widespread in the southern Hemisphere

HABITAT

Mostly coastal but occasional extending into montane area (up to 700 m a.s.l.). In a wide range of habitats but favouring open situations - commonly on sand, especially on sand dunes, sandy beaches and at the back of estuaries. Sometimes colonising sandstone, limestone or volcanic rock outcrops in lowland forest. Rarely in tussock grassland.



Coromandel, January. Photographer: John Smith-Dodsworth



Coromandel, January. Photographer: John Smith-Dodsworth

FEATURES

Rhizome short, 5-10 mm diameter, ascending to subhorizontal, woody, covered with red-brown bracts 5-10 mm long. Culms numerous, somewhat woody, 0.15-2.0 m, 1-2 mm diameter, yellow-green to bronze-green, densely packed on rhizome, rush-like, rigid and erect (sometimes in lush specimens with upper third curving over), terete or slightly compressed, finely striated when dry. Leaves reduced to 3-6 basal sheaths, the uppermost 50-130 mm long, brown or red-brown, the oblique orifice slightly dilated. Inflorescence an apparently lateral, solitary, hemispherical head, 7-15 mm wide, comprised of numerous, densely crowded, sessile spikelets; subtending bract continuous with the culm, rigid, erect, pungent, > inflorescence. Spikelets 3-4 mm long, ovoid, light brown. Glumes broadly ovate, obtuse, margins entire, more or less apiculate. reddish towards the tips, lateral nerves conspicuous. Hypogynous bristles 0. Stamens 3. Style-branches 3. Nut 1 mm long, < 1 mm wide, plano-convex to trigonous, apiculate, dark brown to almost black, shining.

SIMILAR TAXA

Easily distinguished from *Isolepis* R.Br. by the larger overall size, stout, woody rhizomes, by the rigid and mostly erect somewhat woody culms, and by the presence of a gynophore.

FLOWERING

September - December

FLOWER COLOURS

White

FRUITING

November - May

LIFE CYCLE

Nuts are possibly wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and by the division of whole plants. Does best when planted in a free draining soil in a sunny site. Ideal in coastal sites but remarkably cold tolerant.

ETYMOLOGY

ficinia: Named after Heinrich David Auguste Ficus, 19th century German botanist

WHERE TO BUY

Occasionally available from specialist native plant nurseries

CULTURAL IMPORTANCE

Ficinia nodosa is naturalised around the New Zealand World War II, soldier graves at Suda Bay, Crete.

ATTRIBUTION

Description adapted from Moore and Edgar (1970)

REFERENCES AND FURTHER READING

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora.

Perspectives in Plant Ecology, Evolution and Systematics 11: 285-309

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Ficinia nodosa* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/ficinia-nodosa/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/ficinia-nodosa/>

Ficinia spiralis

COMMON NAME

Pingao, golden sand sedge, pikao

SYNONYMS

Isolepis spiralis A.Rich., *Desmoschoenus spiralis* (A.Rich.) Hook.f., *Anthophyllum urvillei* Steudel, *Scirpus frondosus* Boeck, *Scirpus spiralis* (A.Rich.) Druce

FAMILY

Cyperaceae

AUTHORITY

Ficinia spiralis (A.Rich.) Muasya et de Lange

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

FICSPI

CHROMOSOME NUMBER

2n = 30

CURRENT CONSERVATION STATUS

2012 | At Risk – Declining | Qualifiers: PD, RR

PREVIOUS CONSERVATION STATUSES

2009 | At Risk – Relict | Qualifiers: CD, Inc, Sp

2004 | Gradual Decline

DISTRIBUTION

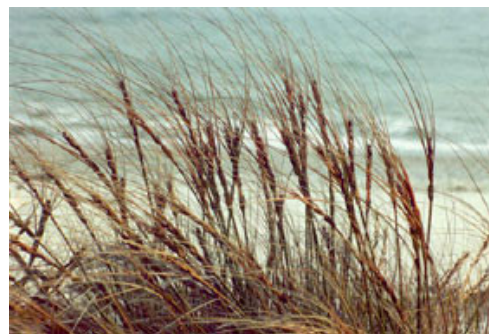
Endemic. New Zealand: North, South, Stewart and Chatham Islands.

HABITAT

Coastal sand dune systems. It favours sloping and more or less unstable surfaces, growing mostly on the front face of active dunes but also on the rear face and rear dunes, provided that there is wind-blown sand. It can also grow on the top of sand hills. It is effective at trapping sand.



Parengarenga Harbour, East Beach.
Photographer: John Sawyer



Mason Bay, Stewart Island. Photographer: John Sawyer

FEATURES

Stout, yellow-green when fresh, golden when dry, shortly creeping plants with stiff culms and very harsh leaves. Rhizome lignaceous, 10–15 mm diameter, shortly creeping, covered by red-brown to brown, fibrous strands left from decaying leaf-sheaths. Culms numerous, 0.3–1.2 m tall, 2–4 mm diameter, erect, obtusely trigonous, very leafy at the base. Leaves numerous, ± = culms, 2–5 mm. wide, stiffly erect or weakly curved, coriaceous, linear, concavo-convex or ± channelled, margins and keel sharply denticulate, narrowed to a long, trigonous tip; sheaths submembranous, much broader than leaves, with numerous, red-brown veins. Inflorescence, paniculate 70–300 mm long, each panicle composed of c.12 confluent clusters of sessile spikelets, each cluster subtended by a rigid leaf-like bract adnate to the axis and broadening at base to an open sheath, lower bracts much exceeding inflorescence. Spikelets 4–5 mm. long, dark red-brown. Glumes coriaceous, rigid, broadly ovate, obtuse, distinctly nerved, finely mucronulate, the lower ones ± keeled. Nut 2.5–4.0 x 2.0–2.5 mm, broadly obovoid, concavo-convex, compressed, obtuse, dark brown, smooth and shining.

SIMILAR TAXA

None. Easily recognised by the widely spreading rhizomatous growth habit, distinctive overall orange colouring of the plant, paniculate spiral seed heads, and by the possession of a gynophore (see taxonomic notes).

FLOWERING

Spring and early summer

FLOWER COLOURS

White

FRUITING

Late summer

PROPAGATION TECHNIQUE

Can be grown from fresh seed and cuttings. Fresh seed germinates easily but plants resent root disturbance, and they should be grown in root trainers. Although it will tolerate most soils and moisture regimes, it obviously does best in coastal situations within active sand dunes.

THREATS

Competition from marram grass (*Ammophila arenaria*), dune stabilisation and compaction, harvesting, trampling, vehicle traffic and browsing animals. Because this species is wind-pollinated, individuals of small, isolated populations may not receive pollen during flowering, and therefore there will be no seed production. Browsing and trampling by sheep and horses; browsing of seedlings by possums; seed destruction by rodents; fire and insensitive harvesting.

ETYMOLOGY

ficinia: Named after Heinrich David Auguste Ficus, 19th century German botanist

spiralis: From the Latin *spira* 'coil' or 'twist' and *-alis* 'resembling', resembling a twist or corkscrew, spiral-shaped

TAXONOMIC NOTES

Desmoschoenus was recently (Muasya & de Lange 2010) submerged into the mainly South African genus *Ficinia* on the basis of sound molecular and morphological reasons. Based on multiple DNA markers *Desmoschoenus* was found to be firmly embedded within *Ficinia*, that, along with its possession of a gynophore (a small cup like structure found at the base of ovary/nut otherwise known only from *Ficinia*) were considered firm reasons for its merger.

Furthermore *Desmoschoenus* closely resembles those *Ficinia* which the molecular study placed it with. Read more about this research: [A new name and genus for pingao](#)

VIDEO STORY

[Pingao](#) - Watch the TVNZ Meet the Locals video.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (6 August 2006). Description adapted from Moore & Edgar (1970).

REFERENCES AND FURTHER READING

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Wellington, Government Printer

Muasya, A.M.; de Lange, P.J. 2010: *Ficinia spiralis* (Cyperaceae) a new genus and combination for *Desmoschoenus spiralis*. *New Zealand Journal of Botany* 48: 31–39.

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Ficinia spiralis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/ficinia-spiralis/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/ficinia-spiralis/>

Juncus kraussii subsp. australiensis

COMMON NAME

Sea rush

SYNONYMS

Juncus maritimus var. *australiensis* Buchenau

FAMILY

Juncaceae

AUTHORITY

Juncus kraussii subsp. *australiensis* (Buchenau) Snogerup

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Rushes and Allied Plants

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. North, South and Chatham Islands. From Te Pahi to the Okarito in the west and Dunedin in the South. Inland in the North Island at Lake Rotorua, at Orakeikorako, and in the South Island at Mesopotamia, Rangitata River

HABITAT

Primarily coastal where it is found in salt marshes, brackish stream, lagoon and river margins, estuaries. Also inland around geothermal vents at Lake Rotorua and Orakeikorako, and inland at the headwaters of the Rangitata River.

FEATURES

Dense to loosely tufted, dark brown to brownish-black, perennial herb. Rhizome 5-8 mm diameter, horizontal sparingly branched. Flowering stems 0.3-1.2 m tall, 1.5-3.0 mm diameter, rather distant along rhizome, rigid, terete, light to dark yellow-brown, dark brown or brownish-black; internal pith continuous; basal bracts stiff, acute, red-brown, upper ones obviously larger, broader and mucronate. Leaves 1-2, terete, bright green, sheathing at base, similar to the stems but shorter. Inflorescence apparently lateral, open, irregularly-branched, branchlets numerous, rigid, almost equaling the pungent sheathing bract. Flowers 3 mm long, clustered at the branchlet apices; tepals rigidly stiff, red-brown, midrib green to light brown. Stamens 3 perfect, 3 aborted, rarely with 1 or more of the usually aborted inner ring functional; anthers twice as long as filaments. Capsule slightly > tepals, dark brown to almost black, ovoid, shining, mucronate.



Kennedy Bay. March. Photographer: John Smith-Dodsworth



Kennedy Bay. March. Photographer: John Smith-Dodsworth

SIMILAR TAXA

Most likely to be found growing with *Juncus acutus* L., an aggressive, introduced species with sharp-tipped bracts above the flower heads; *J. kraussii* differs in having open rather than densely compact inflorescence; flowers in small rather than large, compact clusters; and dark brown rather than red-brown capsules which are more or less equal to, rather than > in length to the tepals.

FLOWERING

September - December

FLOWER COLOURS

Brown, Red/Pink

FRUITING

November - April

LIFE CYCLE

Mucilaginous seeds are dispersed by attachment, wind and water (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and division of whole plants. An attractive species ideal in rock gardens and one that should be used more widely in coastal plantings, especially bordering saltmarshes.

ETYMOLOGY

juncus: From the Latin *jungere* 'to tie or bind', the stems of some species being used to make cord (Johnson and Smith)

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (1 September 2006). Description based on Moore & Edgar (1970).

REFERENCES AND FURTHER READING

Johnson, A. T. and Smith, H. A (1986). *Plant Names Simplified: Their pronunciation, derivation and meaning*. Landsman Bookshop Ltd: Buckenhill, UK.

Moore, L.B.; Edgar, E. 1970: *Flora of New Zealand*. Vol. I. Government Printer, Wellington.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Juncus kraussii* subsp. *australiensis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/juncus-kraussii-subsp-australiensis/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/juncus-kraussii-subsp-australiensis/>

Lagurus ovatus

COMMON NAME

Harestail

FAMILY

Poaceae

AUTHORITY

Lagurus ovatus L.

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Grasses

NVS CODE

LAGOVA

CONSERVATION STATUS

Not assessed

YEAR NATURALISED

1873

ORIGIN

Mediterranean

ETYMOLOGY

lagurus: From the Latin lagos 'hare' and oura 'tail', alluding to the tail-like inflorescence

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/lagurus-ovatus/>



Lagurus ovatus. Photographer: John Smith-Dodsworth



Lagurus ovatus. Photographer: John Smith-Dodsworth

Lupinus arboreus

COMMON NAME

Tree lupin

FAMILY

Fabaceae

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

LUPARB

CONSERVATION STATUS

Not assessed

HABITAT

Terrestrial. Short tussockland, bare land, riverbeds, coastal sandy and well drained areas.

FEATURES

Short-lived, perennial shrub to 2-3 m high. Deep taproot. Stems densely silky-hairy when young, tough, erect, branching, becoming soft-woody. Leaves grey-green, hairless above, silky below, divided into 5-11 leaflets spreading out from one point finger-like; leaflets 15-40 x 3-10 mm. Flowers pea-like, 15-18 mm long, usually pale yellow (rarely white or bluish), sweetly scented, Oct-May. Seed pod stout, softly hairy, 40-80 mm long, firmly attached; splits explosively to disperse dark brown, mottled seeds, 4-6 mm long.

SIMILAR TAXA

L. angustifolius blue lupin is a semi-woody annual with blue flowers Aug-Apr, occasionally weedy. *L. polyphyllus* herbaceous weedy species with blue flowers. Hybrid *L. arboreus* x *polyphyllus* has larger and more leaflets, flower yellow with blue or purple streaks; is rarely weedy.

FLOWERING

October, November, December, January, February, March, April, May

FLOWER COLOURS

Yellow

YEAR NATURALISED

1899

ORIGIN

California, N. America

ETYMOLOGY

arboreus: From the Latin arbor 'tree', meaning tree-like



Lupinus arboreus. Photographer: John Smith-Dodsworth



Lupinus arboreus flowers. Photographer: John Smith-Dodsworth

Reason For Introduction

Ornamental

Life Cycle Comments

Perennial.

Reproduction

Reproduces via seed.

Seed

Seed long-lasting in soil.

Dispersal

Water and soil movement. Explosive pods. Deliberately sown for sand consolidation, erosion control.

Tolerances

Tolerates wind, salt, hot to cold, physical damage and grazing (not readily eaten), drought, low fertility (fixes nitrogen), fire. Intolerant of moderate shade and waterlogged soils.

Poisonous plant:

The seed are poisonous if they are chewed or crushed before eating.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/lupinus-arboreus/>

Metrosideros excelsa

COMMON NAME

Pohutukawa

SYNONYMS

Metrosideros tomentosa Richard

FAMILY

Myrtaceae

AUTHORITY

Metrosideros excelsa Sol. ex Gaertn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

METEXC

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2018 | Threatened – Nationally Vulnerable

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Large sprawling mainly coastal tree with leathery oval leaves, bearing masses of red bristly flowers over Christmas. Naturally occurring north of Poverty Bay and north Taranaki, but can be now found as far south as Dunedin. Branches sprawling up to around 20 metres, often with masses of dangling reddish rootlets.

DISTRIBUTION

Endemic. New Zealand: Three Kings Islands and North Island from North Cape to about Pukearuhe, (northern Taranaki) in the west and near Mahia Peninsula (in the east). However, exact southern limit is difficult to ascertain as it has been widely planted and there is evidence that old time Maori cultivated the tree in some southerly areas. Found inland around the Rotorua Lakes and at Lake Taupo - though these occurrences could stem from Maori plantings (though the association of other normally coastal species around these lakes argues against this). Now widely planted throughout the rest of New Zealand (especially around Nelson, the Marlborough Sounds, the Kaikoura Coast and on the west coast to about Hokitika).



Flowers of *Metrosideros excelsa*.
Photographer: Wayne Bennett



A Pohutukawa flower. Photographer: DoC

HABITAT

Coastal forest and on occasion inland around lake margins. Also in the far north occasionally an associate of kauri forest. In some northerly locations it forms forest type in its own right - this forest is dominated by pohutukawa, other associates often include tawapou (*Pouteria costata*), kohekohe (*Dysoxylum spectabile*), puriri (*Vitex lucens*), karaka (*Corynocarpus laevigatus*), and on rodent-free offshore islands the frequent presence of coastal maire (*Nestegis apetala*), and milk tree (*Streblus banksii*) suggests these species too may once have been important in mainland examples of pohutukawa forest.

FEATURES

Tree up to 20 m tall with canopy spread of 10-50m. Specimens typically multi-trunked from base, trunks up to 2 m diameter, branches spreading, and often arching, sometimes looping over ground, and/or bearing "brooms" of aerial adventitious roots. Branchlets numerous, twiggy and long-persistent. Bark firm, persistent and difficult to detach, often deeply furrowed, grey to grey-brown, somewhat corky. Young branchlets tomentose, being covered in fine, deciduous, greyish-white hairs. Leaves of all but water shoots leathery, 25-120 × 25-60 mm, elliptic, oblong, rarely lanceolate, apex acute or obtuse, dark olive-green, undersides thickly clad in white tomentum, adaxial surface at first distinctly tomentose but hairs shedding with leaf maturation. Flowers borne on stout, tomentose pedicels crimson, orange, pink, yellow (or very rarely white). Hypanthium obconic, calyx lobes triangular (deltoid).

SIMILAR TAXA

In New Zealand it is most frequently confused with the Kermadec pohutukawa (*M. kermadecensis*) which is endemic to Raoul Island (Kermadec Island Group). This island endemic differs by the smaller, rounder leaves, and much smaller inflorescences. It also has a tendency to sporadically flower throughout the year and on the New Zealand mainland at least it has a more erect, shrubby growth form, and rarely (if ever) makes a big tree.

FLOWERING

(August-) November-December (-March)

FLOWER COLOURS

Red/Pink, Yellow

FRUITING

(January-) March-April (-May)

PROPAGATION TECHNIQUE

Very easy from fresh seed. Seed must be sown fresh, even if left for a few weeks before sowing viability can drop, especially if seed is allowed to dry out. Very difficult from cuttings, though soft wood water shoots give the best results. Can be grafted onto seedlings.

THREATS

Like all New Zealand tree *Metrosideros*, pohutukawa is most at risk from possum (*Trichosurus vulpecula*) browse. These can seriously damage and even kill trees. Often where their browsing occurs within sites of unrestricted stock and vehicle access, pohutukawa forest is in danger of becoming locally extinct. It does remain common over large parts of its range, a situation being greatly improved by the efforts of people encouraged by the national coordination of Project Crimson - a non profit organisation set up to protect, enhance and/or establish pohutukawa forest, as well as promote the species use, and its conservation.

ETYMOLOGY

metrosideros: Iron heart

excelsa: Tall

WHERE TO BUY

Commonly sold by most retail nurseries.

VIDEO STORY

[Project Crimson in Kawhia](#) - TVNZ / DOC Meet the Locals Story.

ATTRIBUTION

Fact sheet prepared for NZPCN by: P.J. de Lange (4 January 2004). Description adapted from Allan (1961).

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Wellington, Government Printer.

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Metrosideros excelsa* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/metrosideros-excelsa/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/metrosideros-excelsa/>

Muehlenbeckia complexa var. complexa

COMMON NAME

Small-leaved pohuehue, scrub pohuehue, wire vine

SYNONYMS

Polygonum complexum A.Cunn.

FAMILY

Polygonaceae

AUTHORITY

Muehlenbeckia complexa (A.Cunn.) Meisn. var. *complexa*

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Lianas and Related Trailing Plants

NVS CODE

MUECOM

CHROMOSOME NUMBER

2n = 20

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

FLOWER COLOURS

White

ETYMOLOGY

muehlenbeckia: Named after a botanist named Muehlenbeck

complexa: Tangled

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/muehlenbeckia-complexa-var-complexa/>



Pohuehue. Photographer: Wayne Bennett



Pohuehue. Photographer: Wayne Bennett

Myoporum laetum

COMMON NAME

Ngaio

SYNONYMS

Myoporum laetum G.Forst. var. *laetum*, *Myoporum laetum* var. *decumbens* G.Simpson

FAMILY

Scrophulariaceae

AUTHORITY

Myoporum laetum G.Forst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

MYOLAE

CHROMOSOME NUMBER

2n = 108

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Spreading tree bearing glossy yellow-green to dark green heavily spotted oval leaves usually occurring not far from coast. New growth very glossy, dark and sticky. Flowers white with purple spots, at base of leaves. Fruit pink, on a stalk.

DISTRIBUTION

Endemic. Three Kings, North and South Islands. Also on the Chatham Islands where scarce and probably naturalised.

HABITAT

Coastal to lowland forest, sometimes well inland (in Hawkes Bay, Rangataiki and Wairarapa). Often uncommon over large parts of its range.



Ngaio. Photographer: Wayne Bennett



Myoporum laetum, Mahia Peninsula, East Coast Road. Photographer: Gillian Crowcroft

FEATURES

Decumbent shrub, shrub, or small tree up to 10 m tall and in decumbent forms 2-4 m across. Trunk to 0.3 m diam. Bark light grey to brown, thick and corky, firm, persistent, rough and furrowed. Branches stout, spreading. Leaf buds dark brown, purple-black to almost black, very sticky. Petioles flattened up to 300 mm long. Leaves somewhat fleshy, yellow-green to green, conspicuously white to yellow gland-spotted, (40-)100-120 x (10-)30-40 mm, lanceolate, oblong-lanceolate, oblong to obovate, acute to acuminate, margins crenulate-serrulate in upper half to third, margins sinuate to plain. Flowers in 2-6-flowered axillary cymes. Peduncles up to 15 mm long. Calyx-teeth 2 mm, narrow-lanceolate, acuminate. Corolla campanulate, white, purple-spotted, 5-lobed, lobes hairy on upper surface. Stamens 4. Fruit a narrow-ovoid drupe, 6-9 mm long, white or pale to dark reddish-purple.

SIMILAR TAXA

Ngaio could be confused with Tasmanian boobialla (*M. insulare*) but is distinct by its serrated gland-spotted leaves. We include var. *decumbens* G. Simpson within *M. laetum*, regarding it as merely one extreme of a continuous range of variation present in the species. Aside from leaf shape and size there are no other distinguishing characters. Another species, *M. kermadecense*, endemic to the Kermadec Islands, is rarely cultivated in New Zealand, for distinctions see under that species.

FLOWERING

October - January

FLOWER COLOURS

Violet/Purple, White

FRUITING

December - June

PROPAGATION TECHNIQUE

Easily grown from fresh seed and semi-hardwood cuttings

THREATS

Not threatened. However, in some parts of the country such as urban Auckland, Wellington and along portions of the Kaikoura coast hybrid swams involving Tasmanian boobialla (*Myoporum insulare* sens. lat.) are common. The widespread planting of Tasmanian boobialla, or hybrids poses a risk to ngaio in places where it is not common.

ETYMOLOGY

myoporum: Shut pore

laetum: Pleasant

WHERE TO BUY

Commonly cultivated and sold by many garden centres. However, some nursery stock offered as ngaio is either Tasmanian boobialla or hybrids involving that entity (see features).

POISONOUS PLANT

The leaves contain ngaione which has antibacterial properties but is also toxic to livestock, causing liver damage (Brooker et al., 1998). Click on this link for more information about [Poisonous native plants](#).

ATTRIBUTION

Fact Sheet prepared for the NZPCN by: P.J. de Lange (22 April 2011). Description based on Allan (1961)

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Wellington, Government Printer.

Brooker, S. G., Cambie, R. C. and R. C. Cooper (1998). New Zealand Medicinal Plants. Reed: Auckland.

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Myoporum laetum* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/myoporum-laetum/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/myoporum-laetum/>

Oxalis exilis

COMMON NAME

Creeping oxalis, yellow oxalis

SYNONYMS

Oxalis corniculata var. *microphylla* Hook.f.; ?*Oxalis corniculata* var. *ciliifera* (Cunn.) Hook.f.

FAMILY

Oxalidaceae

AUTHORITY

Oxalis exilis A.Cunn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Herbs other than Composites

NVS CODE

OXAEXI

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. Australia, New Zealand and probably the western Pacific. Naturalised in parts of Europe and the United Kingdom. In New Zealand present on the Three Kings, North, South, Stewart and Chatham Islands.

HABITAT

Coastal to subalpine (up to 1100 m a.s.l.). However, mostly in lowland areas. Common in urban areas and in disturbed or successional indigenous habitats. Rarely in dense forest (though often colonising tracksides) and tussock grassland.

FEATURES

Perennial herb without bulbils; taproot absent or weakly developed. Stems creeping or ascending up to 380 mm long, very sparsely antrorse-hairy. Leaves all cauline, tufted, 3-foliolate; leaflets sessile, 2.5-6.0 x 3.0-6.0 mm, mostly bright green, cuneate-obcordate, bilobed, glabrous above, pubescent below, margins ciliate, sinus cut to 1/3 leaflet length, lobes obovate, divergent, apices obtuse, 2-3 mm apart; petioles 10-90 mm long, with antrorse hairs; stipules to 2 mm long, conspicuous, with apex lobed or truncate, or inconspicuous with apex tapering abruptly to petiole, more or less ciliate. Inflorescences axillary, 1-2-flowered; peduncles at least as long as leaves, antrorse-hairy; pedicels erect, sometimes deflexed in fruit. Sepals oblong, 1.5-3.0 mm long, ciliate or glabrous; petals yellow, 4.5-9.0 mm long. Capsule 5.0-10.0 mm long, conical to cylindric, usually moderately retrorse-hairy, often with scattered septate hairs; seeds 1.0-1.4 mm long, strongly transversely ribbed.



Oxalis exilis. Photographer: John Barkla



Oxalis exilis. Photographer: John Barkla

SIMILAR TAXA

Rather variable but recognised by the widely creeping habit and lack of bulbils and obvious taproot; inconspicuous to conspicuous, lobed, truncate or tapering abruptly stipules up to 2 mm long; sparsely antrorse hairy stems; short and broad fruits (5.0-11 x 2-3 mm) with tapering apices that are clad in mostly simple (sometimes septate) hairs; and by the 1.0-1.4 mm long seeds which are strongly transversely ridged.

FLOWERING

Throughout the year

FLOWER COLOURS

Yellow

FRUITING

Throughout the year

PROPAGATION TECHNIQUE

Easily grown and weedy. This species is usually present in gardens and it is often the dominant or sole oxalis present in lawns. It is unlikely that people would want to cultivate it.

ETYMOLOGY

oxalis: From the Greek word oxus meaning acid or sharp

exilis: Thin

WHERE TO BUY

Not commercially available.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 1 November 2005. Description adapted from Webb et al. (1988).

REFERENCES AND FURTHER READING

Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: Flora of New Zealand. Vol. IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons. Christchurch, New Zealand, Botany Division, D.S.I.R.

Wilcox, M.D. Creeping *Oxalis* carpets on Motuihe island. *Auckland Botanical Society Journal* 56: 19

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Oxalis exilis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/oxalis-exilis/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/oxalis-exilis/>

Pittosporum crassifolium

COMMON NAME

Karo

SYNONYMS

Pittosporum crassifolium var. *strictum* Kirk

FAMILY

Pittosporaceae

AUTHORITY

Pittosporum crassifolium Banks et Sol. ex A.Cunn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

PITCRF

CHROMOSOME NUMBER

2n = 24

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Bushy small tree with greyish leathery oval leaves that are white underneath and clusters of small dark red flowers and large hard green fuzzy capsules inhabiting upper North Island. Leaves 5-7cm long, margins often rolled under. Fruit 2-3cm wide, splitting into three to display the black seeds in a yellow pith.

DISTRIBUTION

Endemic. New Zealand, Great Barrier and North Island. In the North indigenous from Te Pahi south to about White Cliffs, and East Cape. Widely naturalised further south to Wellington. Naturalised in the South, Stewart and Chatham Islands. Also naturalised on Norfolk Island, and in Hawaii.

HABITAT

Coastal and offshore islands. Favouring steep slopes, cliff faces, boulder beaches, rock stacks and the margins of petrel burrowed land. Sometimes forms major canopy dominant on offshore islands, and on occasion can be a significant component of dune forest. Often an urban weed because its fruits/seeds are avidly taken by indigenous and exotic birds and dispersed widely.



Pittosporum crassifolium showing emergent inconstant male flowers and subtending leaf like bracts, October, Coromandel.
Photographer: John Smith-Dodsworth



Pittosporum crassifolium with mature fruit.
Photographer: Peter de Lange

FEATURES

Gynodioecious shrubs to small trees 1-10 m tall. Trunk stout, grey-black. often distinctly lenticillate. Branches and branchlets erect, dark grey-black or brown, immature branchlets densely invested in grey-white or white tomentum, this maturing black. Leaves alternate, usually densely crowded toward branch and branchlet apices. Petioles 4-14 x 1-3 mm, grey-white to grey-black tomentose. Leaves 30-100 x 10-30 mm, obovate to oblanceolate, apices obtuse to acute, base attenuate, margins entire, both surfaces densely white, grey-white or brown tomentose when young, soon glabrate above but remain densely covered in dirty white or grey-white, appressed tomentum beneath, very coriaceous, margins thickened and often strongly revolute, surfaces often blistered with insect galls. Flowers in terminal 1-10-flowered fascicles; pedicels 6-50 mm, accrescent in fruit, tomentose, subtended by a whorl of leaves and numerous, 3-15 mm long, caducous, brown-tomentose, ciliate bud scales. Sepals 7-11 x 1.5-3 mm, oblong to linear-lanceolate, acute, greyish-white, dirty white or brown tomentose on outer surfaces, inner surface only toward the middle, margins ciliate. Petals 10-16 x 3-5 mm, oblanceolate to lanceolate, subacute, free to base, recurved at apices, dark red, purple, yellow, pink or white; stamens 5-9 mm long, anthers 1-3 x 0.5-1.5 mm, sagittiform to elliptic-oblong. Ovary 3-6 x 2-5 mm, white or grey-white tomentose; style 3-2.5 mm long, stigma capitate or 3-lobed truncate. Capsules woody, 10-30 x 10-30 mm, (2-)3(-4)-valved, woody, trigonous, sometimes 2-4-lobed

SIMILAR TAXA

Pittosporum fairchildii Cheeseman is somewhat similar, differing from *P. crassifolium* by its glabrate rather than heavily tomentose foliage and capsules, both being sparsely covered in brownish tomentum. Furthermore the capsules of *P. fairchildii* are green to yellow-green rather than grey-black when mature, somewhat fleshy rather than woody, sparsely covered in brown tomentum rather than densely covered in grey-white tomentum and unlike *P. crassifolium* they scarcely (if ever) open, tending to fall intact from the tree.

FLOWERING

August - October

FLOWER COLOURS

Red/Pink, Violet/Purple

FRUITING

September - August (Old fruits persist on trees)

PROPAGATION TECHNIQUE

Easy from fresh seed. Often appears spontaneously in gardens as the seed is distributed far and wide by exotic and indigenous birds. An attractive species popular for its fast growth, robust grey-green leaves, sweetly scented flowers and remarkable resilience in coastal areas. Although frost sensitive, once established it will tolerate moderate frosts and snow fall.

THREATS

Not Threatened. However, the fruits are eaten by rats, and on rodent infested offshore islands this species rarely regenerates.

ETYMOLOGY

pittosporum: Pitch seed

crassifolium: From the Latin *crassus* 'thick' and *folius* 'leaf'

WHERE TO BUY

Commonly available from most garden centres.

TAXONOMIC NOTES

Plants referred to this species from Raoul Island, in the Kermadecs are an as yet undescribed species, perhaps closest to the Norfolk Island *Pittosporum bracteolatum* Endl. The type of *P. crassifolium* appears to be the same as the later named *Pittosporum ralphii* Kirk. Further research is needed.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 30 August 2006. Description adapted from Cooper (1956).

REFERENCES AND FURTHER READING

Cooper, R.C. 1956: The Australian and New Zealand species of *Pittosporum*. *Annals of the Missouri Botanical Garden* 43: 87-188

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Pittosporum crassifolium* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/pittosporum-crassifolium/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pittosporum-crassifolium/>

Poa billardierei

COMMON NAME

Sand tussock, hinarepe

SYNONYMS

Festuca littoralis Labill.; *Schedonorus littoralis* (Labill.) P.Beauv.; *Triodia billardierei* Spreng.; *Poa billardierei* (Spreng.)St.-Yves; *Schedonorus billardiereanus* Nees; *Arundo triodioides* Trin.; *Schedonorus littoralis* var. *alpha minor* Hook.f.; *Austrofestuca littoralis* (Labill.) E.B.Alexev.

FAMILY

Poaceae

AUTHORITY

Poa billardierei (Spreng.)St.-Yves

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

POABIL

CHROMOSOME NUMBER

2n = 28

CURRENT CONSERVATION STATUS

2012 | At Risk – Declining | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2009 | At Risk – Declining | Qualifiers: SO

2004 | Gradual Decline

DISTRIBUTION

North Island, South Island, Chatham Island (apparently absent from Chatham Island now despite being formerly abundant). Also found in temperate Australia.

HABITAT

Coastal dunes; sandy and rocky places near the shore, especially foredunes and dune hollows.

FEATURES

Yellow-green tussocks up to about 70 cm tall. Leaves fine, rolled, somewhat drooping (coarser than silver tussock), initially green, often fading at tips to silver, and drying to golden-straw colour. Seed heads no longer than leaves; seeds relatively large, barley-like, leaving a characteristic zig-zag look to the remaining head when fallen. Flowers in early summer and the seed are produced in late summer. It could be confused with *Poa chathamica* which has blue-green or grass-green flat leaves and an open seed head which overtops the foliage. It could also be confused with marram grass which has similar foliage but large cat's tail-like seed heads which overtop the foliage.



Austrofestuca littoralis. Photographer: Kevin Matthews



Austrofestuca littoralis. Photographer: Geoff Walls

SIMILAR TAXA

Ammophila arenaria (marram grass) is often confused with sand tussock because they grow in the same habitat.

FLOWERING

Early summer

FRUITING

Mid to late summer

LIFE CYCLE

Florets are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Collect seed in mid to late summer-autumn (early January in Wellington). Use fresh seed, sow in free-draining seed-raising mix (50:50 peat:sand), cover lightly with sieved river sand. It should germinate within 2 months. Grow on in open position where they will not be waterlogged. When growing by division collect material in autumn (after flowering has finished) or spring (before new growth appears). Use vigorous pieces from outside of plant and do not make divisions too small. Water regularly until established and new growth appears. Plant out in well-drained soil in open situation.

THREATS

Mammalian grazing and browsing (palatable to sheep, cattle, goats and horses). Competition from marram grass. Coastal development and use of vehicles. The combined impact of browsing and competition from marram grass is believed to have caused the loss of the species from the Chatham Islands.

ETYMOLOGY

poa: Meadow grass

billardierei: Named after Jacques Houttou de Labillardiere (1755-1834), 19th century French botanist who described several New Zealand plants

NOTES ON TAXONOMY

Until 2009 *Poa billardierei* was treated in Australasia as part of the segregate genus *Austrofestuca* Tzvelev. Soreng et al. (2009) reinstated the name *Poa billardierei* for this species after demonstrating that it and the allied Australian endemic *Austrofestuca pubinervis* (Vickery) B.K.Simon (now *Poa pubinervis* Vickery) were nested within *Poa* where they form their own section (Sect. *Austrofestuca* (Tzvelev) Soreng, L.J.Gillespie & S.W.L.Jacobs). The other two Australian endemic species of *Austrofestuca* (*A. eriopoda* (Vickery) S.W.L.Jacobs and *A. hookeriana* (F.Muell. ex Hook.f.) S.W.L.Jacobs) are now placed in the reinstated *Hookerochloa*.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 2 September 2003.

REFERENCES AND FURTHER READING

Cameron, E.K. 1991. *Austrofestuca* an extinct addition to the Waitakere Flora. Auckland Botanical Society Journal, 46: 20.

Mitcalfe, B., Horne, C. 2002. Rediscovery of a nationally rare tussock in Makara Foreshore Reserve, Owhariu Bay, Wellington. Wellington Botanical Society Bulletin 48: 23-24

Soreng, R.J.; Gillespie, L.J.; Jacobs, S.W.L. 2009: *Saxipoa* and *Sylvipoa* - two new genera and a new classification for Australian *Poa* (Poaceae: Poinae). *Australian Systematic Botany* 22: 401-412.

Stanley, R. 2001. Sand tussock *Austrofestuca littoralis* update on the Auckland populations. Auckland Botanical Society Journal, 56: 21-22

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 2009 Vol. 11 No. 4 pp. 285-309

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Poa billardierei* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/poa-billardierei/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/poa-billardierei/>

Pseudopanax lessonii

COMMON NAME

Houpara

SYNONYMS

Panax lessonii DC.

FAMILY

Araliaceae

AUTHORITY

Pseudopanax lessonii (DC.) K.Koch

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Dicotyledonous Trees & Shrubs

NVS CODE

PSELES

CHROMOSOME NUMBER

2n = 48

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Coastal tree with fleshy hand-shaped leaves

DISTRIBUTION

Endemic. Three Kings to Poverty Bay and northern Taranaki

HABITAT

Coastal forest and scrub



Leaves of *Pseudopanax lessonii*. Photographer: Wayne Bennett



Motuoruhi, Coromandel, March. Photographer: John Smith-Dodsworth

FEATURES

Small tree to 6 m tall; branches stout, with leaves crowded towards tips of branchlets. Leaves alternate, leaflets 3-5, palmate, lateral leaflets smaller; juvenile leaves larger than adult. Petiole to 15 cm long, stout, sheathing stem at base; stipules absent. Leaflets subsessile, terminal leaflet on short petiolule, obovate-cuneate, sinuate-crenate to bluntly serrate in distal half, subacute to obtuse, dark green above, paler beneath, midvein obvious, lateral veins obscure, c. 5-10 x 2-4 cm. Inflorescence a terminal compound umbel; male (staminate) primary rays (branchlets) 4-8 c. 4-5 cm long, flowers racemosely arranged along secondary rays; pistillate (female) primary rays shorter, flowers in irregular umbellules. Petals greenish, acute; anthers on filaments < petals. Ovary 5-loculed, each containing 1 ovule; style branches 5, connate, tips spreading. Fruit fleshy, dark purple, broadly oblong, 7 x 5 mm, style branches retained on an apical disc. 5 Seeds per fruit, narrowly ovate to ovate or oblong, dimpled, 5.5-8.0 mm long.

SIMILAR TAXA

Vegetatively similar to *Pseudopanax colensoi* which has obviously-toothed leaflets

FLOWER COLOURS

Green

ETYMOLOGY

pseudopanax: False cure

ATTRIBUTION

Description adapted from Allan (1961), Eagle (2006) and Webb and Simpson (2001).

REFERENCES AND FURTHER READING

Allan, H.H. 1961. Flora of NZ, Vol. I. Government Printer, Wellington

Eagle, A. 2000. Eagle's complete trees and shrubs of NZ. Te Papa Press, Wellington

Webb, C.J. & Simpson, M.J.A. 2001. Seeds of NZ gymnosperms and dicotyledons. Manuka Press, Christchurch.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pseudopanax-lessonii/>

Senecio elegans

COMMON NAME

Purple groundsel

FAMILY

Asteraceae

AUTHORITY

Senecio elegans L.

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Dicotyledonous Herbs - Composites

NVS CODE

SENELE

CONSERVATION STATUS

Not assessed

FLOWER COLOURS

Violet/Purple

YEAR NATURALISED

1935

ORIGIN

South Africa

ETYMOLOGY

senecio: From the Latin senex 'old man' (probably referring to the bearded seeds)

elegans: Elegant

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/senecio-elegans/>



Senecio elegans. Photographer: John Barkla



Riversdale. Nov 2006. Photographer: Jeremy Rolfe

Spinifex sericeus

COMMON NAME

Spinifex, kowhangatara

SYNONYMS

New Zealand plants have long been referred to *Spinifex hirstutus* Labill. a species that is now considered quite unrelated and confined to Western Australia

FAMILY

Poaceae

AUTHORITY

Spinifex sericeus R.Br.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

SPISER

CHROMOSOME NUMBER

$2n = 18$

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. Common throughout New Zealand. Also present in Australia

HABITAT

Strictly coastal where it is confined to sandy beaches. This is the main dune forming indigenous plant in New Zealand. It is usually found at the front of actively accumulating foredunes. It does not tolerate stable dune systems and does not compete well with other introduced dune plants.



New Chums beach, Whangapoua, February.
Photographer: John Smith-Dodsworth



New Chums beach, Whangapoua, February.
Photographer: John Smith-Dodsworth

FEATURES

Stoloniferous, often forming colonies stretching to 80-(160) m along sand dunes, with much-branched, knotted, rope-like, hard, creeping culms. Leaf-sheath leathery, strongly-nerved, silky-hairy. Ligule minute, ciliate, hairs very dense to 6 mm. Leaf-blade c.300 mm, inrolled and c.1.5 mm diameter, leathery, strongly nerved, silky-villous. Culm 2.5-6.0 mm diameter, internodes glabrous, silky-villous below inflorescence. Dioecious*: male inflorescence with numerous pedunculate racemes, 0-120 mm, bearing up to 15 silky-villous spikelets, each terminated by a short bristle c.10 mm; raceme clusters subtended by spathaceous bracts; raceme. Male spikelets 100 mm; glumes 7-9 spikelet, 7-9-nerved; lemmas similar to glumes but less villous, 5-nerved; each floret with 2 emarginate lodicules 0.6 x 0.3 mm, and 3 pollen-filled anthers to 6 mm. Female inflorescence very conspicuous, globular, appearing spiny with strict bracts to 150 mm, disarticulating from culm at maturity and wheeling along sand; spikelets solitary, hidden at base of bract, 15-18 mm; glumes equal to spikelet, 5-7-nerved, silky-villous; lemmas shorter, less villous, rather chartaceous, 3-5-nerved; lower floret sterile; upper floret female, larger, with 2 lodicules c.1 x 1 mm, and 3 stamens with stout filaments bearing white, pollen less anthers up to 1.5 mm; ovary 1.5-2.0 mm, stigma-styles 17-20 mm; seed free, c. 4.5-5.0 x 2.5 mm. * but stems with both male and female flowers are known

SIMILAR TAXA

None - the distinctive softly spiny female seed heads, which disarticulate and are usually seen rolling down the beach readily identify this species.

FLOWERING

September - December

FLOWER COLOURS

White

FRUITING

November - May

PROPAGATION TECHNIQUE

Easily grown from fresh seed (which is best). Can be grown from layered pieces but often slow to start and fickle. Does best when planted directly into sand dunes - not a good plant for the average garden.

WHERE TO BUY

Sold by a number of specialist native plant nurseries. Popular plant for dune restoration.

ATTRIBUTION

Description adapted from Edgar and Connor (2000).

REFERENCES AND FURTHER READING

Edgar, E.; Connor H.E. 2000: Flora of New Zealand. Vol. 5. Landcare Research, Christchurch.
Gardner, R. 1999. *Spinifex sericeus* in Auckland. Auckland Botanical Society Journal, 54: 36

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/spinifex-sericeus/>